



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,205	08/02/2005	Andreas Kohl	PC10496US	9988
23122	7590	06/08/2010	EXAMINER	
RATNERPRESTIA			IRVIN, THOMAS W	
P.O. BOX 980			ART UNIT	
VALLEY FORGE, PA 19482			PAPER NUMBER	
			3657	
			MAIL DATE	
			DELIVERY MODE	
			06/08/2010	
			PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/524,205

**Applicant(s)**

KOHL ET AL.

**Examiner**

THOMAS IRVIN

**Art Unit**

3657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 15 and 22, the phrase "type" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "type"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim element "means for monitoring" and "means for determining" are means (or step) plus function limitations that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to **clearly** link or associate the disclosed structure, material, or acts to the claimed function such that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it clearly links or associates the corresponding structure, material, or acts to the claimed function without introducing any new matter (35 U.S.C. 132(a)); or

(c) State on the record where the corresponding structure, material, or acts are set forth in the written description of the specification that perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hofsaess et al. (6,517,170) in view of Newton et al. (4,255,088).

Hofsaess et al. teach an electrohydraulic brake system for motor vehicles of the brake- by-wire' type including a hydraulic pressure source that can be actuated by means of an electronic control unit and is comprised of a hydraulic pump driven by an electric motor and a high-pressure accumulator adapted to be recharged by the pump. However, Hofsaess et al. do not teach wherein a means is provided for monitoring the hydraulic delivery rate of the pump and determining quantities of gas or air at the suction side of the pump based on the monitored hydraulic delivery rate.

Newton et al. teach a means is provided for monitoring the hydraulic delivery rate of the pump and determining quantities of gas or air at the suction side of the pump based on the monitored hydraulic delivery rate (fig. 1, col.1, lines 23-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine quantities of gas or air at the suction side of the pump in order to optimize operation of the system.

Regarding claims 17, Hofsaess et al., as modified, do not disclose the monitoring of the power consumption of the motor to determine the hydraulic delivery rate, however, it would have been obvious to one of ordinary skill in the art to monitor the power consumption to determine the hydraulic delivery rate instead of monitoring the voltage. The examiner notes that power consumption and voltage are proportionally related, and one of ordinary skill in the art would choose what to monitor based on convenience.

### ***Response to Arguments***

Applicant's arguments filed 24 February 2010 have been fully considered but they are not persuasive.

In response to applicant's arguments regarding the 35 U.S.C. 112 2<sup>nd</sup> par. rejection, the examiner points out that the specification does not **clearly** link the disclosed structure to the claimed function. The written description only implicitly or inherently sets forth the corresponding structure, material, or acts that perform the claimed function.

Applicant argues that the Newton et al. reference would not have been considered by somebody in the art as it is not in a relevant field. The basis of this argument appears to be the intended use of the device of Newton et al. Applicant cites column 1 lines 9-15 which disclose that "**illustrative** of such fields are the pumping of physiological liquids in the medical field and ... chromatography systems" (emphasis added). In response to this argument, the examiner notes that this list is not meant to be an exclusive list to the use of invention of Newton et al. Additionally, the disclosure is directed to a pump system in general. The examiner feels that the art is reasonably pertinent since it is trying to solve the problem of controlling flow through a pump.

In response to applicant's arguments regarding the "suction side of the pump" limitations, the examiner points out that applicant's arguments are narrower in scope than the claims. The claims only require the brake system to monitor the hydraulic delivery rate; determining the existence of quantities of gas or air at the suction side of the pump is only **based on** the hydraulic delivery rate, and is thus understood to be taught by Newton et al. The examiner also points out that the depicted gas bubble (26) would remain present in the cylinder (14) during both the refill (suction) and delivery (exhaust) portions of the cycle, thus being present at a suction side of the pump.

In response to applicant's argument regarding determining the electromotive force, the examiner points out that this has a measurement in volts, which Newton et al. discloses (col. 2, line 61 – col. 3, line 9).

In response to applicant's argument regarding determining the rotational speed of the pump, the examiner points to col. 5, lines 5-9 of Hofsaess et al., and col. 2, line 61 – col. 3, line 9 of Newton et al.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **THOMAS IRVIN** whose telephone number is (571)270-3095. The examiner can normally be reached on **M-F 10-4pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Robert Siconolfi** can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Irvin/  
Examiner, Art Unit 3657

/Bradley T King/  
Primary Examiner, Art Unit 3657